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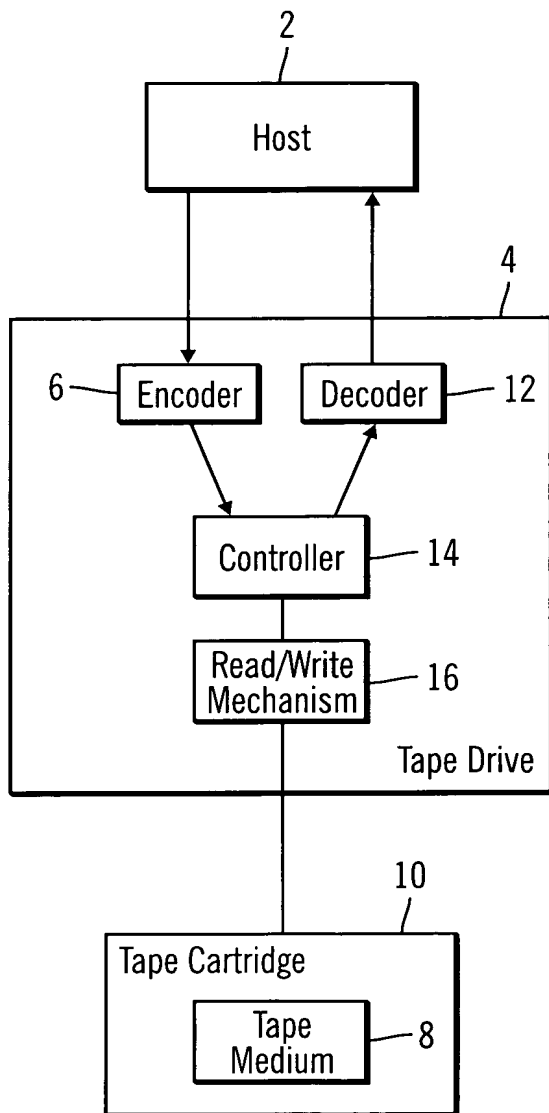


FIG. 1

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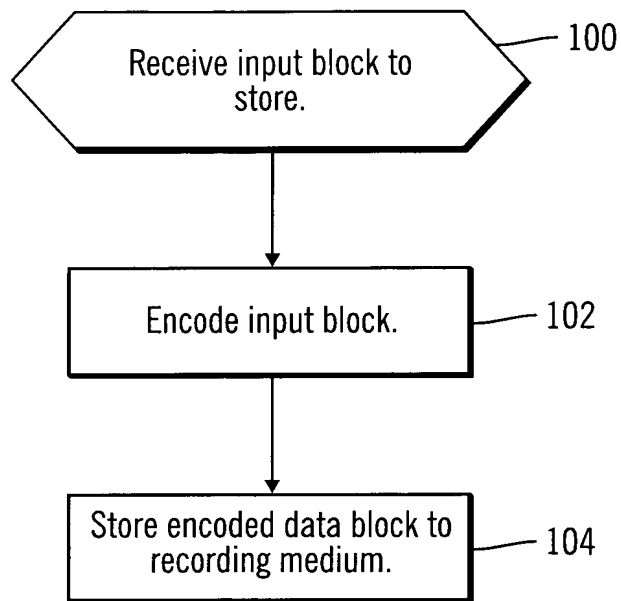


FIG. 2

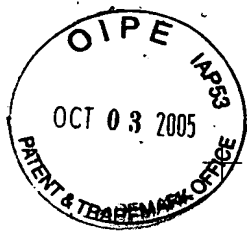


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FIG. 3

Modulation Code <u>300</u>					
Uncoded Blocks <u>310</u>	Encoded Blocks <u>320</u>	Uncoded Blocks <u>310</u>	Encoded Blocks <u>320</u>	Uncoded Blocks <u>310</u>	Encoded Blocks <u>320</u>
00000000	10000010	00101100	100101100	01011000	110110100
00000001	010000001	00101101	100101101	01011001	110110101
00000010	010001110	00101110	110100010	01011010	100111010
00000011	110000010	00101111	110100011	01011011	101111010
00000100	000100001	00110000	110101100	01011100	100001000
00000101	000101110	00110001	110101101	01011101	100001001
00000110	010100001	00110010	001000010	01011110	100001010
00000111	100100001	00110011	001000011	01011111	100001011
00001000	100101110	00110100	001001100	01100000	010000100
00001001	110100001	00110101	001001101	01100001	010000101
00001010	110101110	00110110	101000010	01100010	010000110
00001011	001000001	00110111	101000011	01100011	010000111
00001100	001001110	00111000	101001100	01100100	010001000
00001101	101000001	00111001	101001101	01100101	010001001
00001110	101001110	00111010	001100010	01100110	010001010
00001111	111000010	00111011	101100010	01100111	010001011
00010000	001010001	00111100	011000010	01101000	110001000
00010001	100010001	00111101	011100010	01101001	110001001
00010010	100011010	00111110	111000100	01101010	110001010
00010011	010011110	00111111	111000101	01101011	110001011
00010100	110011010	01000000	001010010	01101100	000100100
00010101	010111110	01000001	001010011	01101101	000100101
00010110	011110010	01000010	100010100	01101110	000100110
00010111	011111010	01000011	100010101	01101111	000100111
00011000	110110010	01000100	101010001	01110000	000101000
00011001	110111010	01000101	101010100	01110001	000101001
00011010	100000100	01000110	010011100	01110010	000101010
00011011	100000101	01000111	010011101	01110011	000101011
00011100	010000010	01001000	001011110	01110100	010100100
00011101	010000011	01001001	101011110	01110101	010100101
00011110	010001100	01001010	011011010	01110110	010100110
00011111	010001101	01001011	111011010	01110111	010100111
00100000	110000100	01001100	000110010	01111000	010101000
00100001	110000101	01001101	001110010	01111001	010101001
00100010	000100010	01001110	000111010	01111010	010101100
00100011	000100011	01001111	001111010	01111011	010101101
00100100	000101100	01010000	010110010	01111100	100100100
00100101	000101101	01010001	010110011	01111101	100100101
00100110	010100010	01010010	010111100	01111110	100100110
00100111	010100011	01010011	010111101	01111111	100100111
00101000	010101011	01010100	011110100	10000000	100101000
00101001	010101110	01010101	011110101	10000001	100101001
00101010	100100010	01010110	100110010	10000010	100101010
00101011	100100011	01010111	101110010	10000011	100101011

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Modulation Code 300 (con't)

FIG. 3 (con't)

Uncoded Blocks 310	Encoded Blocks 320	Uncoded Blocks 310	Encoded Blocks 320	Uncoded Blocks 310	Encoded Blocks 320
10000100	110100100	10110000	010011000	11011100	100010110
10000101	110100101	10110001	010011001	11011101	100010111
10000110	110100110	10110010	010011010	11011110	101010110
10000111	110100111	10110011	010011011	11011111	101010111
10001000	110101000	10110100	001011100	11100000	010010010
10001001	110101001	10110101	001011101	11100001	010010011
10001010	110101010	10110110	101011100	11100010	011010010
10001011	110101011	10110111	101011101	11100011	011010011
10001100	001000100	10111000	000110100	11100100	110010010
10001101	001000101	10111001	000110101	11100101	110010011
10001110	001000110	10111010	001110100	11100110	111010010
10001111	001000111	10111011	001110101	11100111	111010011
10010000	001001000	10111100	010110100	11101000	001011000
10010001	001001001	10111101	010110101	11101001	001011001
10010010	001001010	10111110	010110110	11101010	001011010
10010011	001001011	10111111	010110111	11101011	001011011
10010100	101000100	11000000	010111000	11101100	101011000
10010101	101000101	11000001	010111001	11101101	101011001
10010110	101000110	11000010	010111010	11101110	101011010
10010111	101000111	11000011	010111011	11101111	101011011
10011000	101001000	11000100	100110100	11110000	010010100
10011001	101001001	11000101	100110101	11110001	010010101
10011010	101001010	11000110	101110100	11110010	010010110
10011011	101001011	11000111	101110101	11110011	010010111
10011100	001100100	11001000	001101000	11110100	110010100
10011101	001100101	11001001	001101001	11110101	110010101
10011110	101100100	11001010	001101010	11110110	110010110
10011111	101100101	11001011	001101011	11110111	110010111
10100000	111001000	11001100	101101000	11111000	011010100
10100001	111001001	11001101	101101001	11111001	011010101
10100010	111001010	11001110	101101010	11111010	011010110
10100011	111001011	11001111	101101011	11111011	011010111
10100100	011000100	11010000	011001000	11111100	111010100
10100101	011000101	11010001	011001001	11111101	111010101
10100110	011100100	11010010	011001010	11111110	111010110
10100111	011100101	11010011	011001011	11111111	111010111
10101000	001010100	11010100	011101000		
10101001	001010101	11010101	011101001		
10101010	001010110	11010110	011101010		
10101011	001010111	11010111	011101011		
10101100	010010001	11011000	100010010		
10101101	110010001	11011001	100010011		
10101110	011010001	11011010	101010010		
10101111	111010001	11011011	101010011		

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METHOD AND APPARATUS FOR ENCODING DATA TO GUARANTEE ISOLATED TRANSITIONS IN A MAGNETIC RECORDING SYSTEM

M. Blaum, et. al.  
TUC920010037US1

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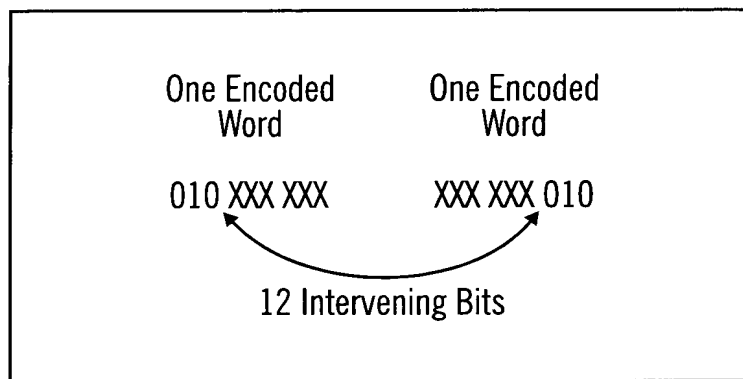


FIG. 4

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FIG. 5

Unencoded Blocks 510										Modulation Code 500*										Encoded Blocks 520											
0	0	a2	a3	a4	a5	a6	a7	a8	↔	1	1	1	a2	a3	a4	a5	a6	a7	a8	↔	1	1	1	a2	a3	a4	a5	a6	a7	a8	
0	1	0	a3	a4	a5	a6	a7	a8	↔	0	1	1	1	1	a3	a4	a5	a6	a7	a8	↔	0	1	1	1	a3	a4	a5	a6	a7	a8
0	1	1	a3	a4	a5	a6	a7	a8	↔	a3	0	1	1	1	1	a4	a5	a6	a7	a8	↔	a3	0	1	1	1	a4	a5	a6	a7	a8
1	0	0	a3	a4	a5	a6	a7	a8	↔	a3	a4	0	1	1	1	1	a5	a6	a7	a8	↔	a3	a4	0	1	1	1	a5	a6	a7	a8
1	1	0	1	0	a5	a6	a7	a8	↔	a5	a4	0	0	1	1	1	1	a6	a7	a8	↔	a5	a4	0	0	1	1	1	a6	a7	a8
1	1	0	1	1	a5	a6	a7	a8	↔	a5	0	1	0	1	1	1	1	a6	a7	a8	↔	a5	0	1	0	1	1	1	a6	a7	a8
1	1	0	1	1	0	a6	a7	a8	↔	0	1	1	0	1	1	1	1	a6	a7	a8	↔	0	1	1	0	1	1	1	a6	a7	a8
1	a5	a5	1	a5	a5	a6	a7	a8	↔	a5	0	1	a6	0	1	1	1	a7	a8	↔	a5	0	1	a6	0	1	1	1	a7	a8	
1	1	0	0	a4	a5	a6	a7	a8	↔	a5	a4	1	a6	0	1	1	1	a7	a8	↔	a5	a4	1	a6	0	1	1	1	a7	a8	
1	1	0	1	0	1	0	a7	a8	↔	0	1	1	0	0	1	1	1	a7	a8	↔	0	1	1	0	0	1	1	1	a7	a8	
1	1	1	0	a4	a5	a6	a7	a8	↔	a4	a5	0	a6	a7	0	1	1	1	a8	↔	a4	a5	0	a6	a7	0	1	1	1	a8	
1	1	1	1	0	0	a6	a7	a8	↔	a6	0	1	0	a7	0	1	1	1	a8	↔	a6	0	1	0	a7	0	1	1	1	a8	
1	1	0	1	0	1	1	a7	a8	↔	a7	0	1	1	0	0	1	1	1	a8	↔	a7	0	1	1	0	0	1	1	1	a8	
1	1	0	1	1	0	0	a7	a8	↔	0	1	1	0	a7	0	1	1	1	a8	↔	0	1	1	0	a7	0	1	1	1	a8	
1	1	1	1	1	a5	a6	a7	a8	↔	a5	0	a6	a7	0	a8	0	1	1	1	↔	a5	0	a6	a7	0	a8	0	1	1	1	
1	1	0	1	1	1	1	a7	a8	↔	a7	1	0	0	1	a8	0	1	1	1	↔	a7	1	0	0	1	a8	0	1	1	1	
1	1	0	1	1	1	a6	a7	a8	↔	a6	0	a7	0	1	a8	0	1	1	1	↔	a6	0	a7	0	1	a8	0	1	1	1	
1	1	1	1	1	1	a6	a7	a8	↔	a6	1	0	a7	0	a8	0	1	1	1	↔	a6	1	0	a7	0	a8	0	1	1	1	

\*The above modulation code 500 may be used, in certain implementations, for all 9 bit unencoded blocks except for the block "001111111", which in certain cases encodes instead to the 10 bit block "0110000111".

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